OIL AND GAS PIPELINES

Vulmproepox R-RH

ENVIRONMENTALLY FRIENDLY PRODUCT

WATER-BASED COATING

HEALTHY – ELIMINATION OF HARMFUL EFFECTS ON HUMAN HEALTH

Coating for iron construction, anti-corrosion base and top coat

Product description:

Vulmproepox R-RH is a two-component water-based coating consisting of component A (aqueous dispersion, epoxy resin containing additives, pigments and fillers) and component B (polyamine hardener).

Use:

It is used for steel structures (also from light metals and alloys) as an anti-corrosion protection with a high degree of corrosion inhibition and as a protection against chemical and mechanical effects. **Vulmproepox R-RH** is recommended for surfaces in medium corrosive environment (level C2-C3) such as the interior of ships, steel structures, interior walls and warehouse and factory premises, steel doors. The coating is resistant to water, chemicals, detergents, oil, oil products and salty marine environment.

Benefits:

- resilient and hard surface
- good chemical and mechanical resistance
- extreme resistance to impacts and shocks
- resists penetration of liquids
- adhesive even to a slightly greasy surface
- possibility to achieve a greater thickness in one coating

Test data:

TSÚS 353/2005	STN EN ISO 6270-1 (67 2012)
	STN EN ISO 2808 (67 3061)
	STN EN 2409 (67 3085)
	STN EN ISO 7253 (67 3092)
	corrosion in the cross-section by a method according to Annex A, STN EN ISO 12944-6

Product data:

colour:	RAL according to customer's choice
appearance:	matte, semi-gloss
shelf life:	12 months in original packaging in dry conditions
	at the temperature 10 – 35 °C
limit VOC:	according to Ministry of Environment Decree no. 127/2011 Coll.: 200 g/l
	Measured value: 12,4 g/l

Physical data:

binder content:	20 %
solids content:	65 %
water content:	15 %
flow:	15,9 cm

VULM BIOTECHNOLOGY s.r.o., Tuhovská 18, 831 06 Bratislava
info@vulmbiotech.com, www.vulmbiotech.com

hardness:	after 24 hours	60 Shore D
	3 days	70 Shore D
	7 days	78 Shore D
	28 days	82 Shore D
	at a relative air humidity of 65 % and temperature of 20 °C	
abrasion resistance:	156 md/1000 cycles	
handling time:	45 minutes	
density:		
component A:	2,37 g/ml	
component B:	1,08 g/ml	
component A + B:	2,07 g/ml	

Processing temperature:

minimum temperature of the substrate:	5 °C
maximum temperature of the substrate:	30 °C
ideal temperature for processing:	20 °C
maximum relative air humidity:	85 %

Theoretical capacity:

6,7 – 10 m^2/kg	1x coating thickness 80 µm
2,2 – 3,3 m^2/kg	2 – 3x coating thickness 250 µm

Application methods:

roller, brush, spray

Instructions for use:

The mixture of components A and B is in a ratio of 10 : 1 (by weight – 1 kg of component A and 0.1 kg of component B). Mixing of the reactive components takes 2 – 3 minutes, but ends after achieving a homogeneous mixture. Viscosity is adjusted by the addition of water (max. 10 %). The prepared material is applied by brush, roller or spray, independently of the thickness of layer. The material should be applied within 45 minutes after mixing, since afterwards it begins to solidify.

The coating is applied in one or two layers (as necessary).

Substrate:

The substrate must be sufficiently coherent and supporting. Surface must be flat, solid, free of dirt and loose particles. It may contain max. of 35% humidity, which should be measured by a hygrometer. The coating can be applied on slightly oily surfaces. Surface must be dusted and without rough particles, preferably cleaned by pressurized water. Degreasing is not necessary.

Time data for application:

processability of the mixed material:	approx. 45 minutes
dry to touch and re-coating interval:	approx. 2 hours
walkable:	24 hours
fully loadable:	65 hours

at a relative air humidity of 65 % and temperature of 20 °C

Cleaning of tools:

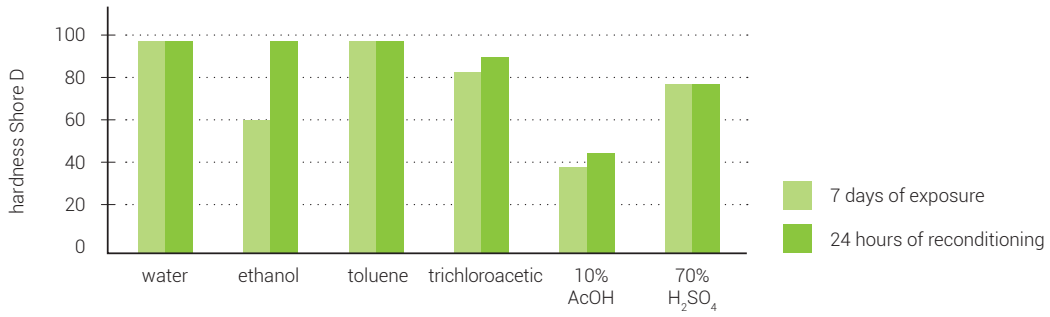
Immediately after use, with water.

Resistance:

- withstands high mechanical loads
- resistant to chemicals, solvents, detergents and cleaners
- resistant to heat of up to 140 °C (short-term), does not change characteristics at 100 °C
- corrosion resistant (category C2 (long durability) and C3 (medium durability))

VULM BIOTECHNOLOGY s.r.o., Tuhovská 18, 831 06 Bratislava
info@vulmbiotech.com, www.vulmbiotech.com

Chemical resistance:



Safety:

Vulmproepox R-RH – when handling, proceed in accordance with the general safety measures, follow the safety instructions on the packaging labels and on safety data sheets. Data, specifications, directions and recommendations given in this technical data sheet are based on experience gained in modeling of supposed ways of applications, or under specially defined conditions. Their accuracy, completeness or appropriateness under the actual conditions of any intended use is not guaranteed and must be determined by the user. The manufacturer and distributor are not responsible for the results achieved, loss, direct or consequential damages arising from failure to comply with the recommended use of the product, which go beyond the conditions herein.

Tests:

Property	Declared value or class	Number of test report and laboratory reference
Release of pollutants into the environment	Existence of Safety Data Sheet	–
Corrosion resistance (AO)	degree of corrosivity of the atmosphere: C2 – high durability of coatings C3 medium durability of coatings	[1] Test Report no. 353/2005
Test in the condensation chamber degree of blistering degree of corrosion degree of cracking degree of peeling adhesion after exposure	 degree 0 (S0) degree Ri 0 degree 0 (S0) degree 0 (S0) degree 0 up to 1 (coating thickness < 250 µm) There must be no adhesive fracture from the substrate at the pull-off value< 5 MPa (coating thickness > 250 µm)	
Test in the neutral salt spray degree of blistering degree of corrosion degree of cracking degree of peeling corrosion in cross-cut adhesion after exposure	 degree 0 (S0) degree Ri 0 degree 0 (S0) degree 0 (S0) max. 1 mm degree 0 up to 1 (coating thickness < 250 µm) There must be no adhesive fracture from the substrate at the pull-off value < 5 MPa	
Adhesion	degree 0 up to 1 (coating thickness < 250 µm) There must be no adhesive fracture from the substrate at the pull-off value < 5 MPa (coating thickness > 250 µm)	[1] Test Report no. 353/2005